

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Canceled)

3. (Currently amended) ~~The system as claimed in claim 2, wherein:~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein

said examining part comprises a measurement part which measures the number of pixels each having a gray-scale level higher than a predetermined threshold on a foreground part, and measures the same on a background part of each image part, and a first scoring part which gives a score as to relationship between the thus-measured numbers of pixels, and wherein

said measurement part does not measure the number of pixels on the background part near the boundary with the foreground part when the measured number of pixels on the foreground part is larger than a predetermined value.

4. (Currently amended) ~~The system as claimed in claim 1,~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each

having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein said examining part examines symmetry on each image part.

5. (Currently amended) ~~The system as claimed in claim 1,~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein said examining part examines area balance on each image part obtains continuity of a foreground part from the number of pixels each having a gray-scale level higher than a predetermined threshold in respective areas obtained from dividing the foreground part.

6. (Currently amended) ~~The system as claimed in claim 1,~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image

parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein said examining part examines angular periodicity on each image part.

7. (Currently amended) ~~The system as claimed in claim 1,~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein said examining part gives a plurality of primary scores on each image part with respect to various characteristic factors, and then, gives a final score thereon by combining the plurality of primary scores according to a predetermined manner.

8. (Currently amended) ~~The system as claimed in claim 1,~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image

parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically,

further comprising a selecting part which selects one of a plurality of image parts to be sent to the determining part when the plurality of image parts are present less than a predetermined distance from each other.

9. (Canceled)

10. (Currently amended) ~~The system as claimed in claim 1, wherein:~~ An image recognition system comprising:

an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and gives a first score on each image part as to how much it resembles the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically, wherein

said determining part sums the total score on the respective input image parts and a score as to how much the arrangement of the respective image parts resembles that of the respective elements of the predetermined figure.

11. (Canceled)

12. (Canceled)

13. (Original) ~~The method as claimed in claim 12, wherein:~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein

said step a) comprises the steps of a1) measuring the number of pixels each having a gray-scale level higher than a predetermined threshold on a foreground part, and measuring the same on a background part of each image part, and a2) giving a score as to relationship between the thus-measured numbers of pixels, and

said step a1) does not measure the number of pixels on the background part near the boundary with the foreground part when the measured number of pixels on the foreground part is larger than a predetermined value.

14. (Currently amended) ~~The method as claimed in claim 11,~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein said step a) examines symmetry on each image part.

15. (Currently amended) ~~The method as claimed in claim 11,~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein said step a) ~~examines area balance on each image part~~ obtains continuity of a foreground part from the number of pixels each having a gray-scale level higher than a predetermined threshold in respective areas obtained from dividing the foreground part.

16. (Currently amended) ~~The method as claimed in claim 11,~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein said step a) ~~examining~~ examines angular periodicity on each image part.

17. (Currently amended) ~~The method as claimed in claim 11;~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein said step a) gives a plurality of primary scores on each image part with respect to various factors, and then, gives a final score thereon by combining the plurality of primary scores according to a predetermined manner.

18. (Currently amended) ~~The method as claimed in claim 11;~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically,

further comprising the step c) of selecting one of a plurality of image parts to be processed by said step b), when the plurality of image parts are present less than a predetermined distance from each other.

19. (Canceled)

20. (Currently amended) ~~The method as claimed in claim 11,~~ An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, said plurality of elements each having the same shape, and giving a first score on each image part as to how much it resembles the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically, wherein:

said step b) sums the total score on the respective input image parts and a score as to how much the arrangement of the respective image parts resembles that of the respective elements of the predetermined figure.